

WHAT IS CLAIMED IS:

1. A transmission power control method comprising:  
step for receiving a signal transmitted from a  
communication counterpart station;

5 step for measuring a reception quality value of each  
received time slot;

control instruction determining step for periodically  
determining a control instruction depending upon said reception  
quality values of said plurality of slots; and

10 transmission step for transmitting said control  
instruction to said counterpart station,

whereby said control instruction being used for  
transmission power control of said counterpart station.

15 2. A transmission power control method as set forth in claim  
1, wherein determination of said control instruction in said  
control instruction determining step and transmission of said  
control instruction in said transmission step are performed  
per said time slot.

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3. A transmission power control method as set forth in claim  
1, wherein said control instruction determining step is to form  
said time slot group by a plurality of time slots and to determine  
said control instruction based on the reception quality values  
25 of the time slots contained in said time slot group on reception.

4. A transmission power control method as set forth in claim 1, wherein error correction coding process is provided for information bit series of the signal transmitted from said counterpart station, the time slot group is consisted of a plurality of time slots to provide interleaving per said time slot group, and

said control instruction determining step determines said control instruction based on the reception quality values of the time slots contained in the time slot group on reception.

5. A transmission power control method as set forth in claim 3, wherein said control instruction determining step comprises:  
step for comparing one of a median value of the reception quality values of slots contained in the time slot group on reception,  $X\%$  value wherein  $X$  is a value in a range from 0 to 100 or an average value with a first control reference value; and

step for determining said control instruction based on the result of comparison.

6. A transmission power control method as set forth in claim 5, which further comprises:

step of checking presence or absence of error of received signal, and said first control reference value is varied

depending upon detected error.

7. A transmission power control method as set forth in claim 1, wherein said control instruction determining step includes  
5 step for increasing the transmission power of the counterpart station when the reception quality value of the time slot measured per reception of said time slot is smaller than a second control reference value.

10 8. A transmission power control method as set forth in claim 1, wherein said control instruction determining step includes step for decreasing the transmission power of the counterpart station when the reception quality value of the time slot measured per reception of said time slot is greater than a third control  
15 reference value.

9. A transmission power control method in a communication system, in which error correction coding process is provided for information bit series of a signal transmitted from a  
20 communication counterpart station and a frame is consisted of a plurality of time slots, comprising:

step for measuring a reception quality value of the time slot per reception of the time slot from said counterpart station;  
and

25 step for transmitting a control instruction for

increasing a transmission power of said counterpart station  
when a median value of the reception quality values of slots  
contained in the time slot group on reception,  $X\%$  value wherein  
X is a value in a range from 0 to 100 or an average value is  
5 smaller than a first control reference value, and transmitting  
the control instruction for decreasing the transmission power  
of said counterpart station otherwise,

whereby said control instruction is used for transmission  
power control for the counterpart station.

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10. A transmission power control method in a communication  
system, in which error correction coding process is provided  
for information bit series of a signal transmitted from a  
communication counterpart station and a frame is consisted of  
15 a plurality of time slots, and interleaving is provided per  
the interleaved block, comprising:

step for measuring a reception quality value of the time  
slot per reception of the time slot from said counterpart station;  
and

20 step for transmitting a control instruction for  
increasing a transmission power of said counterpart station  
when a median value or average value of the reception quality  
values of slots contained in the time slot group on reception  
is smaller than a first control reference value, and  
25 transmitting the control instruction for decreasing the

transmission power of said counterpart station otherwise,  
whereby said control instruction is used for transmission  
power control for the counterpart station.

- 5 11. A transmitting and receiving apparatus comprising:  
receiving means for receiving a signal transmitted from  
a communication counterpart station;  
measuring means for measuring a reception quality value  
of each received time slot;  
10 control instruction determining means for periodically  
determining a control instruction depending upon said reception  
quality values of said plurality of slots; and  
transmitting means for transmitting said control  
instruction to said counterpart station for use in transmission  
15 power control of said counterpart station.

12. A transmitting and receiving apparatus as set forth in  
claim 11, wherein said control instruction determining means  
performs determination of said control per said time slot, and  
20 said transmitting means performs transmission of said control  
instruction per said time slot.

13. A transmitting and receiving apparatus as set forth in  
claim 11, wherein said control instruction determining means  
25 forms said time slot group by a plurality of time slots and

to determine said control instruction based on the reception quality values of the time slots contained in said time slot group on reception.

5 14. A transmitting and receiving apparatus as set forth in claim 11, wherein said control instruction determining means forms a time slot group per an interleaved block as interleaved unit in the counterpart station and determines said control instruction based on the reception quality values of the time  
10 slots contained in the time slot group on reception.

15 15. A transmitting and receiving apparatus as set forth in claim 13, wherein said control instruction determining means compares one of a median value of the reception quality values of slots contained in the time slot group on reception, X% value wherein X is a value in a range from 0 to 100 or an average value with a first control reference value and determines said control instruction based on the result of comparison.

20 16. A transmitting and receiving apparatus as set forth in claim 15, which further comprises:

means for checking presence or absence of error of received signal, and means for varying said first control reference value depending upon detected error.

17. A transmitting and receiving apparatus as set forth in claim 11, wherein said control instruction determining means increases the transmission power of the counterpart station when the reception quality value of the time slot measured per  
5 reception of said time slot is smaller than a second control reference value.

18. A transmitting and receiving apparatus as set forth in claim 1, wherein said control instruction determining means  
10 decreases the transmission power of the counterpart station when the reception quality value of the time slot measured per reception of said time slot is greater than a third control reference value.

19. A transmitting and receiving apparatus comprising:  
means for measuring a reception quality value of the time  
slot per reception of the time slot from said counterpart station;  
and

means for transmitting a control instruction for  
20 increasing a transmission power of said counterpart station when a median value of the reception quality values of slots contained in the time slot group on reception, X% value wherein X is a value in a range from 0 to 100 or an average value is smaller than a first control reference value, and transmitting  
25 the control instruction for decreasing the transmission power

of said counterpart station otherwise.

20. A transmitting and receiving apparatus comprising:

means for measuring a reception quality value of the time  
5 slot per reception of the time slot from said counterpart station;  
and

means for transmitting a control instruction for  
increasing a transmission power of said counterpart station  
when a median value or average value of the reception quality  
10 values of slots contained in the time slot group on reception  
is smaller than a first control reference value, and  
transmitting the control instruction for decreasing the  
transmission power of said counterpart station otherwise.

15 21. A base station including a transmitting and receiving  
apparatus defined in claim 11.

22. A mobile station including a transmitting and receiving  
apparatus defined in claim 11.